

Remarks

Thorough examination by the Examiner is noted and appreciated.

The claims have been amended to clarify Applicants disclosed and claimed invention.

Support for the amendments is found in the original claims and the Specification. No new matter has been added.

For example support for the claim amendments are found in the original claims, Figure 6.

Support for new claims 21 through 23 is found in the Specification in paragraph 0040 and Figure 7:

"The water jets 80 ejected from the jet clean nozzle 40 may have a pressure of at least typically about 50 kg/cm<sup>2</sup>. As the wafer stage 86 moves the wafer platform 84 and rotating wafer 76 in the direction indicated by the arrow 88, the nozzle adaptor 64 is **typically pivoted on the support rack 74 in a lateral, sweeping motion** to eject the water jets 80 onto the film 77 in such a manner as to define multiple curved, parallel traces 82 across the surface

of the film 77 on the wafer 76. The multiple traces 82 are successively formed by the sweeping water jets 80 across at least one half of the surface area of the film 77 on the wafer 76, as shown in Fig. 7, as the wafer stage 86 is advanced horizontally for a distance which typically corresponds to the radius of the wafer 76."

**Claim Rejections under 35 USC 102**

1. Claims 1-18, and 19 stand rejected under 35 USC 102(b) as being anticipated by Julien (US 6,715,701).

Julien discloses a liquid jet nozzle for forming a **single high velocity liquid jet** for use in an abrasive water jet cutting device (see Abstract; col 3, lines 12-15). The jet nozzle has a tapered channel opening on an input side which tapers to a central web through which extends a small diameter orifice (item 110). The orifice then communicates with an egress opening in the outlet side of the jet nozzle body. (see Abstract; Figure 2).

Julien discloses two fittings (items 72 and 73) which

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communicate through the side of nozzle body to a central chamber (item 75) through which abrasive particles are introduced into a liquid jet (item 80; Figure 1; col 3, lines 33-40) produced by the nozzle.

Julien discloses a **single tapered lead in channel** (item 100, Figure 3) to a narrow web (opening) (item 105) and orifice (item 110) which communication with egress opening (item 115) (col 3, lines 62-66).

In another embodiment, Julien discloses a spray nozzle having a curved spray head with a plurality of orifices (item 145; Figure 5), each of said orifices communicating with a **single spray chamber** (pipe or hose) (item 150; col 5, lines 27-38).

Thus, Julien fails to disclose several aspects of Applicants disclosed and claimed invention.

Julien fails to disclose:

"a nozzle body;

a plurality of spray chambers provided in said nozzle

body, said spray chambers having a longitudinal axis parallel to a longitudinal axis of an inlet chamber, said inlet chamber disposed in said nozzle body for supplying a spray liquid to each of said spray chambers;

wherein each of said plurality of spray chambers is provided in fluid communication with said inlet chamber; and,

a plurality of spray openings provided in fluid communication with said plurality of spray chambers respectively, each of said plurality of spray openings for spraying said spray fluid supplied from a respective spray chamber."

Thus, the disclosure of Julien is clearly insufficient to anticipate Applicants disclosed and claimed invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

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"The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

2. Claims 9, 13, 14, 17, and 18 stand rejected under 35 USC 102(b) as being anticipated by Lazar (US 4,302,040).

Lazar discloses a water spray device for churning and removal of animal manure (see Abstract). The spray device (nozzle body) of Lazar includes an inverted open ended cup (item 16, Figure 1) for spraying liquid through a transverse perforated plate (see Figure 1, Figure 4; item 20 ) where the spray liquid is supplied for spraying through spray openings **from a single liquid supply chamber or inlet chamber** (e.g., see items 12, 14, Figure 1).

Lazar fails to disclose several aspects of Applicants disclosed and claimed invention including Applicants disclosed and claimed invention including Applicants plurality of spray chambers and spray openings and is therefore clearly insufficient to anticipate Applicants disclosed and claimed invention.

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"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

**Claim Rejections under 35 USC 103**

1. Claims 5-8, and 12 stand rejected under 35 USC 103(a) as being unpatentable over Julien, above.

Applicants reiterate the comments made above with respect to Julien, above.

Further, Applicants note that the structure of Julien would make the structure of Applicants structure unsuitable for its intended purpose and that the structure of Applicants would make the structure of Julien unsuitable for its intended purpose.

"Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The

teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

"A prior art reference must be considered in its entirety, i.e., as a whole including portions that would lead away from the claimed invention." *W.L. Gore & Associates, Inc., Garlock, Inc.*, 721 F.2d, 1540, 220 USPQ 303 (Fed Cir. 1983), cert denied, 469 U.S. 851 (1984).

"If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

2. Claims 15, 16, and 20 stand rejected under 35 USC 103(a) as

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being unpatentable over Lazar, above.

Applicants reiterate the comments made above with respect to Lazar, above.

Further, contrary to Examiners assertion that the shape of the spray recess and diameter of the spray openings are a matter of "design choice", Applicants note that there is no disclosure, motivation or suggestion in Lazar to achieve Applicants structure, including a plurality of spray chambers as disclosed and claimed by Applicants. Lazar fails to disclose or suggest Applicants structure.

"Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

However, "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation



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or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

"A prior art reference must be considered in its entirety, i.e., as a whole including portions that would lead away from the claimed invention." *W.L. Gore & Associates, Inc., Garlock, Inc.*, 721 F.2d, 1540, 220 USPQ 303 (Fed Cir. 1983), cert denied, 469 U.S. 851 (1984).

Thus, the cited references, singly or in combination fail to make out a *prima facie* case of anticipation or obviousness with respect to Applicants independent claims, and therefore dependent claims.

**Indicated Allowable Subject Matter**

Applicants gratefully acknowledge Examiners indication of allowable subject matter in claim 19, and have incorporated the limitations of claim 19 into independent claim 17.

Based on the foregoing, Applicants respectfully submit that the Claims are now in condition for allowance. Such favorable

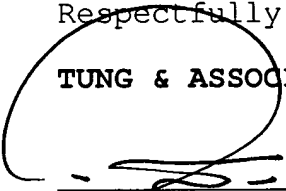
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action by the Examiner at an early date is respectfully solicited.

In the event that the present invention as claimed is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants' representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

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